

C. T. J. GILES.
HINGE.

APPLICATION FILED JULY 26, 1912.

1,063,158.

Patented May 27, 1913.

2 SHEETS-SHEET 1.

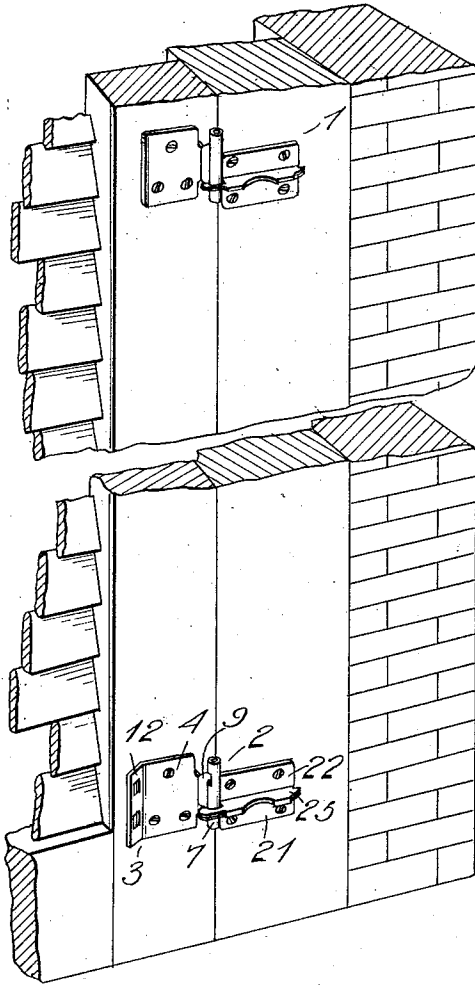


Fig. 1

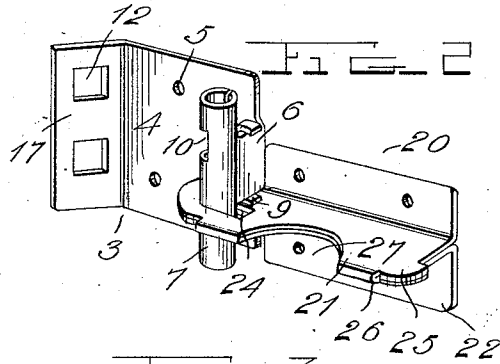


Fig. 2

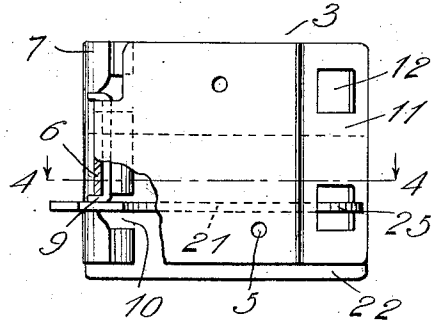


Fig. 3

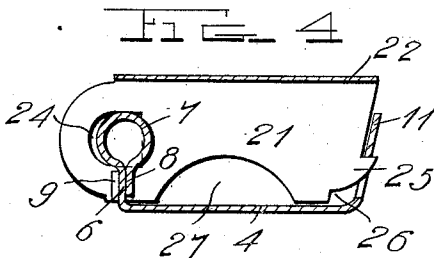
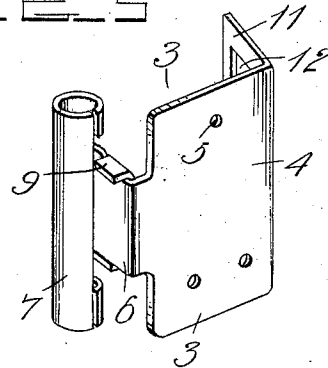


Fig. 4

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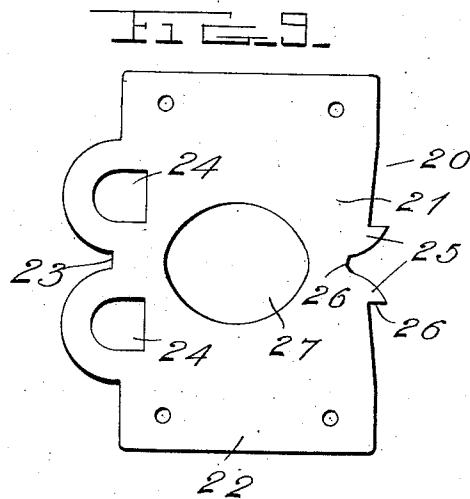
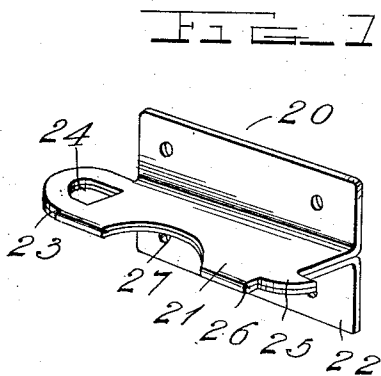
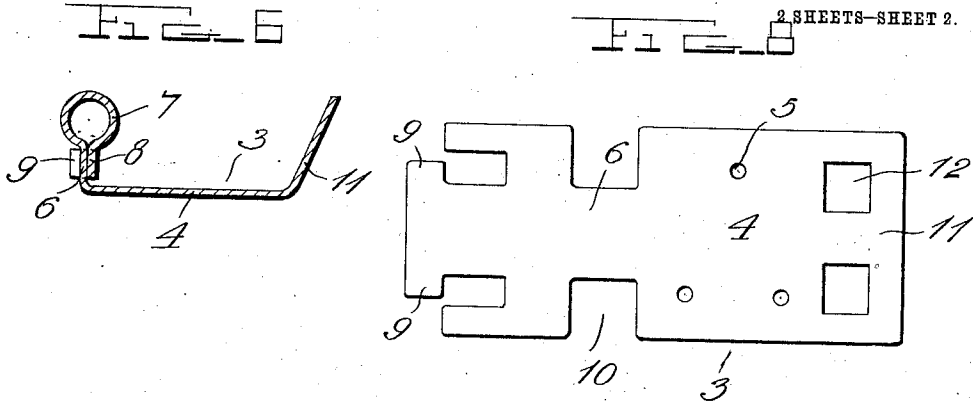
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UNITED STATES PATENT OFFICE.

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HINGE.

1,063,158.

Specification of Letters Patent.

Patented May 27, 1913.

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To all whom it may concern:

Be it known that I, CHESLEY T. J. GILES, a citizen of the United States, residing at Greenville, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Hinges; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hinges.

One object of the invention is to provide a hinge which is particularly adapted for supporting blinds or shutters and in which the stationary member and the movable or blind members are reversible and may be used for both the right and left hand blinds. Another object is to provide a hinge of this character having an improved means for locking the same and the blind in an open position.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a blind and the adjacent side of a building showing my improved upper and lower hinge members applied thereto, the blind being shown in closed position; Fig. 2 is a perspective view of the lower hinge; Fig. 3 is a front view thereof showing the position of the hinge members when the blind is open, parts of the blind member of the hinge being broken away and in section; Fig. 4 is a horizontal section of the lower hinge with the parts as shown in Fig. 3 taken immediately above the supporting plate of the stationary member of the hinge; Fig. 5 is a rear perspective view of the blind member of the lower hinge; Fig. 6 is a horizontal section of the same; Fig. 7 is a perspective view of the stationary member of the hinge which member is the same for both the upper and lower hinges; Fig. 8 is a plan view of the blank from which the lower blind member of the hinge is formed; Fig. 9 is a similar view of the blank from which the stationary member of the hinge is formed.

Referring more particularly to the drawings, 1 denotes the upper hinge and 2 denotes the lower hinge of the blind, shutter

or other object. The lower hinge 2 comprises a blind member 3 formed from a sheet metal blank and consisting of an attaching plate 4 which may be plain or ornamental and of any suitable shape, said plate being here shown as of square or rectangular form and as having therein screw holes 5 to receive the screws for fastening said member to the blind. On the outer edge of the plate 4 is formed a centrally disposed neck 6 which is bent outwardly at right angles a short distance from the outer edge of the plate 4 and has on its outer end a tubular cylindrical head 7 which is formed integral with the neck and extends a considerable distance above and below the upper and lower edges of the neck to form a double ended pintle. The head or pintle 7 is formed by extending the outer end of the neck and increasing the width of said extension, said widened and extended part of the neck being bent in tubular cylindrical form as shown to provide the pintles for engaging the stationary member of the hinge hereinafter described. The central portion of the extension of the neck is farther extended as at 8 and when the pintle or head is formed, said portion 8 is adapted to fit closely against the inner side of the neck 6 as shown. On the upper and lower edges of the portion 8 of the extension are right angular outwardly bent bearing lugs 9 which engage or take over the upper and lower edges of the neck and project beyond the outer side of the latter for a purpose hereinafter described. The extended parts of the neck which form the head or pintle are notched above and below the part 8 of the extension whereby when the head is formed the notches provide rectangular openings 10 on the inner sides of the head as shown. On the opposite or inner edge of the plate 4 is formed a locking extension 11 which is bent outwardly to a suitable angle and is provided with rectangular locking apertures 12 which are adapted to be engaged with a suitable locking mechanism on the stationary member of the hinge as will be hereinafter more fully described.

The stationary member 20 of the hinge is the same for both the upper and lower blind members and may be reversed and used to support either the right or left hand blind. The stationary member 20 is also preferably formed from a sheet metal blank cut or stamped in the shape shown in Fig. 9 of

the drawings, and being bent or doubled upon itself midway between its ends to form a supporting plate 21. The ends of the blank are bent at right angles in opposite directions at the inner edge of the supporting plate to form attaching flanges 22 having screw holes adapted to receive fastening screws whereby said member is secured to the window frame, or other part of the building to which the blinds are applied. The supporting plate 1 has its inner end rounded and projecting a slight distance beyond the inner ends of the flanges 22 and on the outer edge of the projecting rounded end is formed a shoulder or offset 23. In the rounded end of the plate 21 is also formed a substantially D-shaped aperture or pivot hole 24 with which is adapted to be engaged one or the other of the ends of the pintles of the blind members forming the companion of the stationary member. At the opposite or outer end of the plate 21 is formed a hook or catch lug 25 the forward or outer surface of which is rounded or beveled and terminates at its outer end back from the outer edge of the plate thereby forming a shoulder or offset 26 which corresponds with the shoulder 23 at the opposite end of the plate. In forming the hook or catch lug 25 this end of the plate is formed on an angle from the flanged inner edge of the plate inwardly toward the outer edge thereof as shown. In the outer edge of the plate 21 intermediate its ends is formed a notch or recess 27 whereby said plate is made more ornamental and a saving of metal is provided.

In assembling the parts of the hinges the house or stationary members and the upper and lower blind members are secured in their proper relative positions to the window frame of the building and to the blind after which the lower ends of the pintles are engaged with the apertures 24 in the ends of their respective co-acting stationary members in which position the lugs 9 on the lower blind members of the hinges will engage and rest on the rounded extended ends of the plates 21 of the stationary members as shown. When the pintles of the blind members have been engaged with the D-shaped apertures in the supporting plates of the stationary members of the hinge, the shoulders formed by the openings 10 in the pintles of the lower hinge members will engage the under sides of the supporting plates 21 thus preventing the blind from being lifted and the blind members therein disengaged from the stationary blind members except when the blinds are swung to a half way open position wherein the openings 10 which form the notches in the pintles will be in line with the longest dimension of the aperture 24 at which time the blind may be raised and the pintles of the hinge mem-

ber disengaged from the apertures in the supporting plate 21. As soon as the blind is swung to either an open or closed position the notches formed by the openings 10 in the pintles will be brought crosswise or transverse to the longest dimension of the aperture in the plate 21 and in line with the shortest dimension which will cause either the inner or outer end of the aperture to engage the notch formed by the openings 10 in the pintle, thus preventing the disengagement of the lower blind member from its stationary member until the blind is again swung to a half way open position as described. The notches or recesses formed by the openings 10 in the end of the pintle of the lower blind member also provide space to permit the lower end of the blind and the lower blind member to be shifted to a slight extent for engaging and disengaging the locking apertures 12 in the extension 11 of said lower hinge member with and from the hooks or catch lugs 25 on the outer ends of the plates 21 of the stationary hinge members. When the locking apertures 12 are engaged with the catch lugs or hooks 25, the weight or downward pull of the blind will securely hold the lower blind member of the hinge in locked engagement with the stationary member until the blind is shifted to a sufficient extent to disengage the locked parts of the hinge.

Having thus described my invention, what I claim is;

1. A hinge comprising a reversible stationary member, a removable member comprising an attaching plate having on one edge a reduced neck provided on its outer end with an extension projecting above and below the neck, said extension being bent to form a tubular cylindrical head or double ended pintle, and a neck engaging portion formed on said extension of the neck and adapted to be engaged with the inner side of the latter when said pintle is formed and bearing lugs formed on said neck engaging plate of the extension and adapted to fit over the upper and lower edges of the neck and to rest on said stationary member of the hinge when the end of the pintle of the movable member of the hinge is engaged with said stationary member.

2. In a hinge, a stationary member and a movable member, said stationary member comprising a plate bent or folded upon itself to form a supporting plate having its inner ends bent in opposite directions at right angles to the plate and having in one end a substantially D-shaped aperture and a double ended pintle formed on said movable member of the hinge the latter having a reduced neck, and bearing lugs formed on the same and adapted to fit over the upper and lower edges of said neck, said ends of the pintle being adapted to be engaged with

said aperture in the supporting plate of the stationary member whereby said members are pivotally connected together and whereby the same may be reversed to be used in both right and left hand positions.

3. In a hinge, a stationary member and a movable member, said stationary member comprising a plate folded upon itself midway between its ends to provide a supporting plate having its inner edges bent at right angles to form attaching flanges and having one end extended beyond said flanges and rounded, said extended end having therein a substantially D-shaped passage, a catch lug formed on the outer end of said supporting plate, tubular pintles formed on said movable member of the hinge and having in one side thereof, notches whereby the

pintle when engaged with the aperture in the supporting plate of the stationary member of the hinge is permitted to be shifted to a slight extent, a locking extension on the opposite end of the movable member of the hinge, said extension having therein locking apertures adapted to be engaged with the catch lug on the outer end of said supporting plate whereby the movable member of the hinge is locked in open position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHESLEY T. J. GILES.

Witnesses:

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N. H. KNIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."